GREENBROOK
ELECTRICAL PLC

INSTALLATION/OPERATING INSTRUCTIONS FOR TS21TFNM - EMERGENCY LIGHT RANGE

SAFETY

This unit should be fitted by a qualified electrician in accordance with the appropriate national/IEE wiring regulations. Switch off mains supply before installation, maintenance or replacing lamps.
This product must not be modified. Any modification will negate any Safety Mark Approvals and may render the product unsafe. GreenBrook accepts no responsibility for modified products.
This product must be installed in accordance with these instructions. This fitting should be installed in close proximity to any external source of heat or covered with any heat insulating material, air flow around the fitting should not be restricted. Note any minimum distances to adjacent surfaces. This unit should be connected to the lighting supply circuit, or fused at a maximum of 5A.

GENERAL DESCRIPTION

This unit is a non-maintained (NM suffix), self-contained emergency luminaire.
To confirm model type, check the data provided on the fitting and packaging.

TS21TFNM	Non-maintained:	Incorporates two lamps which are illuminated only under mains failure conditions

For the purpose of IEC 598 (1990), these fittings are classified as being, without rest mode.

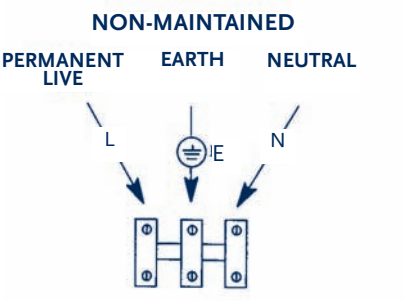
INSTALLATION INSTRUCTIONS

Follow these instructions carefully to ensure safe and reliable operation.
Retain this leaflet for future reference.
The emergency luminaire should be connected to a stable and permanent mains supply of the correct rated voltage and frequency as stated on the product specification label. This may be from the lighting supply circuit, or fused at a maximum of 5A. To facilitate testing a fused spur box can be included in the unswitched permanent live supply.

Class I. This product must be earthed.

All switching etc, shall comply with BS 5266 Part 1. Unless specifically permitted, emergency luminaires should not be connected or controlled by any energy management device.
Before commencing installation, ensure that the electricity supply and battery pack are disconnected. Surge suppressors may be required at the point of connection to the supply wiring when installing luminaires to MICC cable.

1. Undo retaining screws and remove the front cover
2. Select and remove a knock out corresponding with the conduit and / or cable run and secure a suitable bush within the hole to prevent damage to the incoming cable.
3. Mount the base in position on a suitable surface ensuring an adequate airflow will be maintained around it.
4. Bring the cable into position and make the correct electrical connections as follows:



Class I. This product must be earthed.

Terminal (L) : This is the live supply to the charging circuit and must be permanent and unswitched.

Terminal (⏚E) : This is for the earth and must be connected.

Terminal (N) : This is the neutral supply and must be permanent.

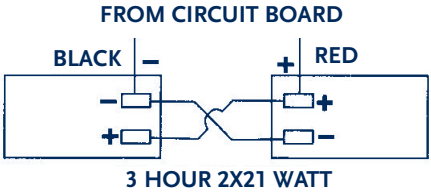
Colour code : Brown=Live Blue=Neutral Green/Yellow=Earth
Conductor Size 1.0mm² - 2.5mm² Solid or Stranded.
Ensure that no strands of bare wire have escaped the terminals.

On completion of the electrical connections, the BATTERIES can be placed UPRIGHT within the enclosure, taking care to avoid any harmful contact between the battery terminals and the metal enclosure.

WARNING

Incorrect connection of the battery polarity could be dangerous. The battery+positive supply is protected by a 5 AMP MAXIMUM RATED FUSE.

5. Mark the battery cell pack with the date of installation and then RECONNECT the battery terminals to the main circuit using the flying leads as follows.



6. Refit the front cover in reverse order, taking care to ensure that no wires are trapped and that all fastenings are secure.
7. To adjust the position of the lamp heads, loosen the axis screws before positioning so as not to cause excess strain on the lamp fixings.

WARNING
The battery cell pack must be RECONNECTED before the mains is switched on.
Failure to comply with these installation instructions may result in irreparable damage to the main circuit.

DO NOT HIGH-VOLTAGE INSULATION TEST THIS UNIT, OR THE LIGHTING SYSTEM WITH THIS UNIT CONNECTED.

COMMISSIONING & TESTING

Switch on the mains supply and check to ensure that both green LED battery charging/lamp failure indicators are illuminated.

a. Both green LED's illuminated indicate supply is present, batteries are charging and both lamp filaments are intact.
b. If one green LED is off this indicates the corresponding lamp filament has failed.
c. If both green LED's are off then check a and b above.

Allow a brief time for initial partial charging and then isolate the permanent live supply by removing the fuse from the fused spur box. Check to ensure the lamps are illuminated from the battery cell pack supply. After a further 60 hours on a continuous charge, and only at a safe and appropriate time, mains failure should be simulated to ensure that full duration rating is achieved.
Thereafter the recharge time is 24 hours.

MAINTENANCE

Servicing should only be carried out after the luminaire has been made electrically safe.

Lamps should be replaced at set intervals for maximum system integrity, use only lamps of the correct type and rating and follow the lamp manufacturers instructions.

Cleaning should be carried out at regular intervals to ensure that dirt does not accumulate to an extent that will impair the electrical and / or thermal safety of the luminaire. Regular cleaning will also ensure that the optical performance is maintained.

Battery packs should be replaced when the luminaire fails to meet its rated duration.

The disposal of components from the luminaire may require consultation with local authorities. The disposal of batteries is subject to Local Authority Regulations, and the By-Laws Department for disposal of toxic waste should be consulted for specific guidance. Battery cell packs must not be incinerated.

SPECIFICATION

Battery Type: Sealed Lead-Acid : 2 x 12 Volt: 7 Ampere Hour Rating

Lamp Type: 2 x 12 Volt: 21 watt BA15D Tungsten Filament

Emergency Lamp Output: 298 Lumens

Please be advised: Lighting levels are only provided to allow checking of correct operation and determination of correct lighting levels on an escape route can only be made with full photometric data.

ROUTINE INSPECTION & TEST PROCEDURE
All tests should be undertaken during daylight hours at times of minimum risk and be in accordance with the recommendations of BS 5266 Part 1: 1988.

DAILY - Check that both green LED battery charging / lamp failure indicators are illuminated.

MONTHLY - In addition to the daily check, a functional test through simulation of mains supply failure should be carried out to confirm lamps are illuminated from the battery cell pack supply. This test need only be approximately 30 seconds. It should not exceed one quarter of the rated luminaire duration.

SIX - MONTHLY - In addition to the monthly test, the lamps should be illuminated from the battery cell pack supply for a continuous period of at least one hour.

THREE - YEARS - In addition to the monthly tests the lamps should be illuminated from the battery cell pack supply for the full rated duration of the luminaire. (Three hours on TS21TFNM Model)

ANNUALLY THEREAFTER - As above, i.e, Check that the luminaire operates for the full rated duration.

At the end of each test period the mains supply should be restored and a check made to ensure that both green LED battery charging/lamp failure indicators are illuminated.

EMERGENCY LUMINAIRE TEST RECORD SHEET

LUMINAIRE TYPE/REF:_____

DATE OF INSTALLATION:_____

LOCATION:_____

		1st Year		2nd year		3rd year		4th year		5th year	
Month	Test	Signed	Date	Signed	Date	Signed	Date	Signed	Date	Signed	Date
1	FUNCTIONAL										
2	FUNCTIONAL										
3	FUNCTIONAL										
4	FUNCTIONAL										
5	FUNCTIONAL										
6	ONE HOUR										
7	FUNCTIONAL										
8	FUNCTIONAL										
9	FUNCTIONAL										
10	FUNCTIONAL										
11	FUNCTIONAL										
12	ONE HOUR										
	FUNCTIONAL										

PLEASE KEEP THESE INSTRUCTIONS SAFE FOR FUTURE REFERENCE

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Issue no: 701692